

**SAS Superstructure**

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 21-Nov-14

Time 10:48 PM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 399 Const Calendar Day: 972 Date: 07-May-2012 Monday

Inspector Name: Brignano, Bob Title: Transportation Engineer

Inspection Type:

Shift Hours: Break: Over Time:

Federal ID:

Location:

Reviewer: Schmitt, Alex Approved Date: Status: Submit

**04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge****Weather**

Temperature 7 AM

12 PM

4PM

Precipitation

Condition clear and hot am, clear and windy pm

Working Day ☒ If no, explain:**Diary:**

Dispute

General Comments

CCO 240 SADDLE DIVIDER PLATE BLOCKING; TOWER SADDLE:

ABF ironworker crew consisting of Jim Benninghove, Ryan Evanchik, Tony Miranda, Mike Portillo, Ryan Nash, and Jonathan Canites work all day at the tower saddle on the installation of the blocking at this location. Ironworkers Mike Draper and Anthony (AJ) Smaller are normally on the same ironworker crew but are not working here today (not at work today?). Laborers Jose Avila and Victor Hernandez are also at this location to cut timbers for the blocking.

Note that blocks consisting of multiple pieces of wood stacked/shimmed are glued together. The ironworkers use the jacks to slightly open up the space between divider plates to install the blocking and then release the jacks to slightly compress the blocking for a tight fit. The laborers use a chop saw and table saw (purchase price on CCO, not rental/charge for duration of work) to cut the timber blocking to the appropriate size.

Some of the timbers that were installed a few days ago on Friday 5/4/2012 and Saturday 5/5/2012 are now loose at the beginning of the day. ABF does work to add shims and shift the timbers around to tighten the loose blocks. We discuss cutting timbers for future blocking a little thicker so that they are a tighter fit - they had been measuring the space between divider plates and adding only 1/16" to accommodate the Design request to not compress/crush the timber. In order to get a tighter fit without crushing the timber, I ask them to aim for the measurement plus 1/8". The laborers take the timbers out of the pallet of wood stored on the OBG deck and lay them out individually so they have more exposure for drying prior to taking them up to the work area. Additionally, they set up 3 fans to blow air over the timbers (fans not listed on signed Extra Work Agreement). The timbers are brought up to the work area at Elevation 150 by the elevator from Elevation 53 near the OBG deck in several elevator trips during the day as additional timber is needed.

By the end of the shift (10 hour day, work to 1700, back to Pier 7 by 1730), the progress is as follows for the blocking installation:

North cable/trough: Done at sidespan end to the saddle centerline, except end blocking that needs to be moved (interior blocking currently 3" from end of divider plate and needs to be moved to 1" from end of divider plate).

South cable/trough: Done at sidespan end to the saddle centerline, except end blocking. Done at mainspan end except for several blocks near the end of the trough where work is difficult under the tugger mounted to the top of the saddle for the south mainspan cable compaction work.

The other tower work today consists of ironworker Matt Holt's crew working on lump sum CCO (See



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Mohammad Awal diary for details). Ironworker Tony Costa's crew only works briefly at the tower top and does not continue with last Friday's work of setting beams for the tuggers for the cable band erection - the CCO 240 work is not interfering with concurrent work at the tower saddle. The Favco tower crane appears to have a maintenance issue and may not be working today - ironworkers (Tony Costa's crew) and mechanics are spending portions of the day on the crane. The other tower work (Matt Holt's crew) is only working an 8-hour shift and the tower elevator operator is only working past 8 hours for the CCO 240 work which is working a 10-hour shift, but tower elevator operator Howard Schroyer is not charged/listed on the Extra Work Order for CCO 240.

The signed Extra Work Order with ABF is for the following:

Ironworker Foreman Jim Benninghove - 8 hours Reg, 2 hours OT

Ironworker Ryan Evanchik - 8 hours Reg, 2 hours OT

Ironworker Tony Miranda - 8 hours Reg, 2 hours OT

Ironworker Mike Portillo - 8 hours Reg, 2 hours OT

Ironworker Ryan Nash - 8 hours Reg, 2 hours OT

Ironworker Jonathan Canites - 8 hours Reg, 2 hours OT

Laborer Foreman Jose Avila - 8 hours Reg, 2 hours OT

Laborer Victor Hernandez - 8 hours Reg, 2 hours OT

20 ton pancake jacks (5 each) - 8 hours Reg, 2 hours OT

14 ton wedge jacks (2 each) - 8 hours Reg, 2 hours OT

1 electric pump and 4 hand pumps for the jacks - 8 hours Reg, 2 hours OT

Chop saw - 8 hours Reg, 2 hours OT

See the attached Extra Work Order - Signed with ABF for CCO 240 work

ITEM 55 FURNISH STRUCTURAL STEEL (BRIDGE)(BOX GIRDER); HIGH STRENGTH FASTENER ASSEMBLY PRE-INSTALLATION TESTING:

At Pier 7 Warehouse, test rotational capacity, minimum tension verification, and inspection torque for high strength fastener assemblies. These fastener assemblies are for OBG field bolting. These fastener assemblies are left over LJB fastener assemblies from ZPMC's work. ZPMC recently shipped all the left over fastener assemblies to ABF, and ABF has been sorting through the containers to determine which material is in a suitable condition to use and could be useful for upcoming OBG bolting work. These are bolt assemblies that have been previously tested and released by CT Translab for use on the job and are just being used in a different location (bolt in field instead of in shop). We examine the bolt assemblies that are still in the original containers from LeJeune Bolt Company to ensure that they are still in good shape (bolt kegs not leaking and lubricant affected) and are properly labeled. Because these bolt assemblies have not been tested on site for rotational capacity, minimum tension verification, and inspection torque, this testing is happening. Material is sampled with witness by Caltrans and testing happens on the material to qualify it for use for field bolting.

Equipment = Bolt Testing Conex ABF ID 002079 and Skidmore Model HT 4000 ABF ID 000612.

ABF: engineer Chris Bausone.

Smith Emory QC: Alan Canivel.

CT: Thuc Tran is present full time and Bob Brignano is present part time.

Testing is in the morning, approximately from 0900 to 1200 for 3 hours for testing 2 lots of M16, 1 lot of M20, and 7 lots of M24 bolts. Testing consists of 5 representative samples each from lot high strength fastener assemblies. All testing is successfully completed.

There is an issue with the set snug tight tension in the computer (computerized Skidmore) for the one lot of M20 bolts and the first lot of M24 bolts. The computer was set to the snug tight tension for M16 bolts, and the tension was not updated for the increased snug tight tension for M20 and M24 bolts. That means that the snug tension is low for those tests and later turn amounts are less than they would be if the proper snug tension were used. For the pre-installation verification of minimum tension, this is not a problem, because the lesser turn amount still achieved the minimum required tension in the bolt - the low snug and

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lesser turn amount is conservative. For determining the inspection torque and for the torque portion of the rocap test, the snug tension and turn amount is not an issue because the test is to a specific tension and the rotation amount does not figure in the test. For the rest of the rocap test, the turn amount being low is a potential issue - the lesser turn amount makes stripping or breaking a bolt less likely and the tension in the bolt is less likely to drop at the tail end of the stress/strain curve making it easier to stay above the final tension requirement of the rocap test. For all the assemblies tested in these 2 lots, the bolts were sufficiently away from stripping the threads and the final tension value was sufficiently high at the reduced turn amount to ensure that the tension would still be adequate for the proper turn amount. . Note that the suppliers of the individual components (nuts, bolts, washers, galvanizing) as well as the overall assembly (LeJeune testing rocap) performed the required QC testing of the material prior to shipping the material. Additionally, since these assemblies came from ZPMC where they were planned to be used, they were also rocap tested by AB/ZPMC with CT witness at ZPMC.

ABF is trying to complete testing of all of the rocap lots of high strength fastener assemblies sent by ZPMC by the end of this week (in a few days) because the calibration on the Skidmore Model HT 4000 ABF ID 000612 expires Saturday 2/12/2012. Then the Skidmore Skidmore Model HT 4000 ABF ID 000612 will be offsite for a few weeks getting its yearly calibration check.

See the attached Bolt Test Form for details of the testing.

INSPECTOR OT REMARK:

2 hours OT in field on CCO 240 blocking at the tower saddle, which is a 10 hour field shift.